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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	**Application No.** 10/679,818	**Applicant(s)** KRENIK ET AL.	
	Examiner Olumide T. Ajibade-Akonai	**Art Unit** 2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 23 January 2006.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 24-27, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by **Auckland et al 20030078037 (hereinafter Auckland)**.

Regarding **claim 24**, Auckland discloses a system for controlling allocation of wireless communication resources, comprising: a first resource control segment (control circuit 1716 and memory 1718, see fig. 17, p.10, [01410]-[0141]), and a first wireless communication interface connected to said first resource control segment (user interface 1720, see fig. 17, p.10, [0141]); a second resource control segment (infrastructure authentication and session management controller 2028 and customization data 2030, see fig. 20, p.13, [0174]), and a second wireless communication interface connected to said second resource control segment (RF to IF section 2002 with receive antenna 2008 and transmit antenna 2010, see fig. 20, p.13, [[0169]-[0170]), said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (base station 200, see fig. 20, p.13, [0169]); said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication (see fig. 17, p.9, [0136]); and said first and second resource control segments each sharing available resource map (ARM) information (data identifying new AIS or new characteristics of an AIS for use by the radio, see fig. 18, p.10, [0147]) with the other and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

Regarding **claim 25**, as applied to claim 24, Auckland further discloses wherein said resource allocation decision concerns transmit and receive frequencies used by said first and second wireless communication interfaces to communicate with each other (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

Regarding **claim 26**, as applied to claim 24, Auckland further discloses wherein said resource allocation decision includes a determination to use, or not to use, frequency channels other than those utilized by cellular operators, for additional communication between said first and second wireless communication interfaces (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

Regarding **claim 27**, as applied to claim 24, Auckland further discloses wherein said first resource control segment and said first wireless communication interface are provided together in another wireless mobile communication apparatus (mobile or portable handset or radiotelephone 1704, see fig. 17, p.9, [0136]).

Regarding **claim 30**, Auckland discloses a system for controlling allocation of wireless communication resources, comprising: a first resource control segment (control circuit 1716 and memory 1718, see fig. 17, p.10, [01410]-[0141]) having access to information in a first resource map (data identifying new AIS or new characteristics of an AIS for use by the radio, see fig. 18, p.10, [0147]), and a first wireless communication interface connected to said first resource control segment (user interface 1720, see fig. 17, p.10, [0141]); a second resource control segment (infrastructure authentication and session management controller 2028 and customization data 2030, see fig. 20, p.13, [0174]) having access to information in a second resource map (data identifying new AIS or new characteristics of an AIS for use by the radio, see fig. 18, p.10, [0147]), and a second wireless communication interface connected to said second resource control segment (RF to IF section 2002 with receive antenna 2008 and transmit antenna 2010, see fig. 20, p.13, [[0169]-[0170]), said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (base station 200, see fig. 20, p.13, [0169]); said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication (see fig. 17, p.9, [0136]) said first and second resource control segments sharing information available from said first and second resource maps and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

Regarding **claim 31**, Auckland discloses a system for controlling allocation of wireless communication resources, comprising: a first resource control segment (control circuit 1716 and memory 1718, see fig. 17, p.10, [01410]-[0141]), and a first wireless communication interface connected to said first resource control segment (user interface 1720, see fig. 17, p.10, [0141]); a second resource control segment (infrastructure authentication and session management controller 2028 and customization data 2030, see fig. 20, p.13, [0174]), and a second wireless communication interface connected to said second resource control segment (RF to IF section 2002 with receive antenna 2008 and transmit antenna 2010, see fig. 20, p.13, [[0169]-[0170]), said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (base station 200, see fig. 20, p.13, [0169]); said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication (see fig. 17, p.9, [0136]); and said first and second resource control segments each sharing with the other available transmit and receive frequencies and thereafter agreeing upon respective transmit and receive frequencies with respect to a wireless communication session involving the wireless mobile communication apparatus (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 5, 6, 7, 9, 18, 19, 22, 23, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)**.

Regarding **claim 1**, Gorsuch et al discloses a system for controlling allocation of wireless communication resources, comprising: a first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]), and a first wireless communication interface (base station equipment 170, see fig. 1, p.3, [0029]) connected to said first resource control segment (base station equipment 170 consists of bandwidth management functionality 174, see fig. 1, p.3, [0029]), a second resource control segment (bandwidth manager 134, see fig. 1, p.2, [0024]), and a second wireless communication interface (subscriber unit 101, see fig. 1, p.2, [0024]) connected to said second resource control segment (subscriber unit 101 consists of bandwidth manager 134, see fig. 1, p.2, [0024]), said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (the subscriber unit 101 is connected to portable computing devices such as a PDA, and laptop computer, see fig. 1, p.2, [0022]), said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication (base station 170 cooperates with the subscriber unit 101 to permit transmission of data fig. 1, p.2, [0022],), and said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session (data transfer between portable devices and other devices connected to the PSTN, see p.2, [0022], and p.5, [0062]) involving the wireless mobile communication apparatus (bandwidth management controls the allocation of radio channels 160 and subchannels, and base station 170 couples the channels to the PSTN network, the base station depending on the state of the state and availability of subchannels, allocates a subchannel to the subscriber unit 101 see fig. 1, p.2, [0022], p.3 [0029] and p.5, [0059]-[0060]).

Gorsuch et al fails to disclose wherein said resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces.

In the same field of endeavor, Auckland discloses wherein said resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces (a remote radiotelephone 1704 communicating with base station 1702 receives signals indicating a new air interface standard AIS from the base station and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10, [0140], [0147]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Auckland into the system of Gorsuch et al for the benefit of selecting channel and protocol or air interface standards for transmit and receive functions between wireless nodes.

Regarding **claim 2**, as applied to claim 1, Gorsuch et al further discloses wherein said resource control segments (bandwidth management 134 and bandwidth management 174, see fig. 1, p. 2 [0026] and p.3, [0029]) are cooperable for selecting wireless communication resources (a subscriber unit 101 may be in a data transmit state, and it makes a request to the base station for the allocation of a subchannel, see p.5, [0059]-[0060]) for the communication session (data transfer between portable devices and other devices connected to the PSTN, see p.2, [0022], and p.5, [0062]).

Regarding **claim 5**, as applied to claim 1, Gorsuch et al further discloses wherein said resource control segments (bandwidth management 134 and bandwidth management 174, see fig. 1, p. 2 [0026] and p.3, [0029]) are cooperable for deciding that resources (subchannels 300, see p. 5, [0058]) allocated for the wireless communication session (data transfer between portable devices and other devices connected to the PSTN, see p.2, [0022], and p.5, [0062]) will be released for use in a further wireless communication session that does not involve the wireless mobile communication apparatus (the subchannel assigned to the subscriber unit 101 is released after a period of low data traffic, and the released subchannel is used for a request that is in queue, see p. 5, [0061]).

Regarding **claim 6**, as applied to claim 5, Gorsuch et al further discloses wherein said resource control segments (bandwidth management 134 and bandwidth management 174, see fig. 1, p. 2 [0026] and p.3, [0029]) are cooperable for deciding that the further communication session has a higher priority than the first-mentioned communication session (the bandwidth request module includes selecting a request having the highest priority with lowest bandwidth utilization, see p.6, [0072]) to use communication resources (subchannels, see p. 6, [0073]) currently allocated to the first-mentioned communication session (data transfer between portable devices and other devices connected to the PSTN, see p.2, [0022], and p.5, [0062]).

Regarding **claim 7**, as applied to claim 5, Gorsuch et al further discloses wherein said first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]) is provided in a further wireless communication apparatus (subscriber unit 102, see fig. 1, p.2, [0022]) involved in a further communication session (subscriber unit 102 is involved in high data speed communication with the terminal equipments 110 and 112 transmits data to other devices connected to the PSTN, see p.2, [0022], p.3, [0031]).

Regarding **claim 8**, as applied to claim 1, Gorsuch et al further discloses wherein said first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]) is provided in a further wireless communication apparatus (subscriber unit 102, see fig. 1, p.2, [0022]) involved in the wireless communication session (subscriber unit 102 is involved in high data speed communication with the terminal equipments 110 and 112 transmits data to other devices connected to the PSTN, see p.2, [0022], p.3, [0031]).

Regarding **claim 9**, as applied to claim 8, Gorsuch et al further discloses wherein the further wireless communication apparatus is a mobile communication apparatus (the subscriber unit 101 is connected to portable computing devices such as a PDA, and laptop computer, see fig. 1, p.2, [0022]).

Regarding **claim 18**, as applied to claim 1, Gorsuch et al further discloses wherein said first and second resource control segments (bandwidth management 134 and bandwidth management 174, see fig. 1, p. 2 [0026] and p.3, [0029]) are cooperable for deciding whether communication resources will be allocated (a subscriber unit 101 may be in a data transmit state, and it makes a request to the base station for the allocation of a subchannel, if a subchannel is not available at base station 17o, the subscriber unit waits till an available or available subchannels are assigned seep. 4, [0042]-[0045], p.5, [0059]-[0060]) for the communication session (data transfer between portable devices and other devices connected to the PSTN, see p.2, [0022], and p.5, [0062]).

Regarding **claim 19**, as applied to claim 1, Gorsuch et al further discloses wherein said first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]) is provided in a further wireless mobile communication apparatus (subscriber unit 102, see fig. 1, p.2, [0022]).

Regarding **claim 22**, as applied to claim 1, Gorsuch et al, as modified by Auckland discloses the claimed invention.

Gorsuch et al fails to disclose wherein said frequency spectrum other than frequency spectrum utilized by cellular operators implements frequency channels adjacent the frequency channels utilized by cellular operators.

Auckland, however, further discloses wherein said frequency spectrum other than frequency spectrum utilized by cellular operators implements frequency channels adjacent the frequency channels utilized by cellular operators (inherent, since the mobile or portable handset 1704 and base station 2000 are capable of switching communication between a plurality of air interface communication standards, indicating that is thus possible to switch from frequency spectrum currently being utilized by the cellular operator to another frequency spectrum whose frequency channels are adjacent to the frequency spectrum of the cellular operators, see figs. 17 and 20, p.9, [0136], p.10, [0140], [0146]-[0147], p.13, [0174]).

It would therefore have been obvious to one of ordinary skill in the art to modify the combination of Gorsuch et al and Auckland for the benefit of selecting channel and protocol or air interface standards for transmit and receive functions between wireless nodes.

Regarding **claim 23**, as applied to claim 1, Gorsuch et al, as modified by Auckland, discloses the claimed invention.

Gorsuch et al fails to disclose wherein when said resource allocation decision is to use frequency channels other than frequency channels utilized by cellular operators, frequency channels in the ISM band are selected if available and, if not available, frequency channels having frequencies adjacent said frequencies of said frequency channels utilized by said cellular operators are selected.

Auckland, however, further discloses wherein when said resource Allocation decision is to use frequency channels other than frequency channels utilized by cellular operators, frequency channels in the ISM band are selected if available and, if not available, frequency channels having frequencies adjacent said frequencies of said frequency channels utilized by said cellular operators are selected (inherent, since the mobile or portable handset 1704 and base station 2000 are capable of switching communication between a plurality of air interface communication standards, indicating that is thus possible to switch from frequency spectrum currently being utilized by the cellular operator to another frequency spectrum in the ISM band or to another frequency spectrum whose frequency channels are adjacent to the frequency spectrum of the cellular operators, see figs. 17 and 20, p.9, [0136], p.10, [0140], [0146]-[0147], p.13, [0174]).

It would therefore have been obvious to one of ordinary skill in the art to modify the combination of Gorsuch et al and Auckland for the benefit of selecting channel and protocol or air interface standards for transmit and receive functions between wireless nodes.

Regarding **claim 28**, as applied to claim 1, Gorsuch et al, as modified by Auckland, discloses the claimed invention.

Gorsuch et al fails to disclose wherein said frequency spectrum other than frequency spectrum utilized by cellular operators is in the ISM band.

Auckland, however, further discloses wherein said frequency spectrum other than frequency spectrum utilized by cellular operators is in the ISM band (inherent, since the mobile or portable handset 1704 and base station 2000 are capable of switching communication between a plurality of air interface communication standards, indicating that is thus possible to switch from frequency spectrum currently being utilized by the cellular operator to another frequency spectrum in the ISM band, see figs. 17 and 20, p.9, [0136], p.10, [0140], [0146]-[0147], p.13, [0174]).

It would therefore have been obvious to one of ordinary skill in the art to modify the combination of Gorsuch et al and Auckland for the benefit of selecting channel and protocol or air interface standards for transmit and receive functions between wireless nodes.

Regarding **claim 29**, as applied to claim 1, Gorsuch et al, as modified by Auckland, discloses the claimed invention.

Gorsuch et al fails to disclose wherein the frequency spectrum utilized by cellular operators are those frequency channels used by fixed-site stations within communication range of said second wireless communication interface.

Auckland, however, further discloses wherein the frequency spectrum utilized by cellular operators are those frequency channels used by fixed-site stations within communication range of said second wireless communication interface (Bluetooth, see fig. 20, p.13, [0174]).

It would therefore have been obvious to one of ordinary skill in the art to modify the combination of Gorsuch et al and Auckland for the benefit of selecting channel and protocol or air interface standards for transmit and receive functions between wireless nodes.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)** as applied to claim 1 above, and further in view of **Veerasamy (6,208,865)**.

Regarding **claim 3**, as applied to claim 1, Gorsuch et al, as modified by Auckland discloses the claimed invention except wherein said resource control segments are cooperable for deciding that a further wireless communication session will be discontinued because the further wireless communication session uses resources already allocated to the first-mentioned wireless communication session.

In the same field of endeavor, Veerasamy teaches wherein said resource control segments (it is inherent that the mobile subscriber unit 10A and base station 14A both have resource control segments or a control unit to communicate via a channel and to distinguish between the low and high priority channels, see fig. 1, col. 3, lines 16-24, and lines 60-67), are cooperable for deciding that a further wireless communication session (low priority call, see col. 5, lines 15–19) will be discontinued because the further wireless communication session uses resources already allocated to the first-mentioned wireless communication session (a low priority call is from a mobile subscriber is dropped by the base station if the there are no reserve channels and there is a pending high priority call, see col. 5, lines 11-19, and lines 44-55).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Veerasamy into the system of Gorsuch et al and Auckland for the benefit of optimizing the use of wireless channels while minimizing the dropping of high priority calls due to a lack of reserved channels.

Regarding **claim 4**, as applied to claim 3, the combination of Gorsuch et al, Auckland and Veerasamy disclose the claimed invention. In addition, Gorsuch et al further discloses wherein said first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]) is provided in a further wireless communication apparatus (subscriber unit 102, see fig. 1, p.2, [0022]) involved in the wireless communication session (subscriber unit 102 is involved in high data speed communication with the terminal equipments 110 and 112 transmits data to other devices connected to the PSTN, see p.2, [0022], p.3, [0031]).

7. Claims 10, 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)** as applied to claim 1 above, and further in view of **Kataoka (20030171124)**.

Regarding **claim 10**, as applied to claim 1, the Gorsuch et al, as modified by Auckland discloses the claimed invention except wherein said first and second resource control segments are cooperable for communicating among one another information indicative of a likelihood of successful execution of the communication session.

In the same field of endeavor, Kataoka teaches wherein said first and second resource control segments (it is inherent that the mobile station and base station both have resource control segments or a control unit to communicate with each other, see p.1, [0015]) are cooperable for communicating among one another information (acknowledgement order, see p.1, [0015]) indicative of a likelihood of successful execution of the communication session (mobile station sends an acknowledgement order to the base station, after which a call connection is completed and telephonic communication between the base station and mobile station occurs, see p.1, [0015]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Kataoka into the system of Gorsuch et al and Auckland for the benefit of providing a spread spectrum communication technique.

Regarding **claim 11**, as applied to claim 10, the combination of Gorsuch et al, Auckland and Kataoka disclose the claimed invention. In addition, Gorsuch et al further discloses wherein said first resource control segment (bandwidth management functionality 174, see fig. 1, p.3, [0029]) is provided in a further wireless communication apparatus (subscriber unit 102, see fig. 1, p.2, [0022]) involved in the wireless communication session (subscriber unit 102 is involved in high data speed communication with the terminal equipments 110 and 112 transmits data to other devices connected to the PSTN, see p.2, [0022], p.3, [0031]).

Regarding **claim 12**, as applied to claim 11, Gorsuch et al further discloses wherein the further wireless communication apparatus is a mobile communication apparatus (the subscriber unit 101 is connected to portable computing devices such as a PDA, and laptop computer, see fig. 1, p.2, [0022]).

Regarding **claim 14**, as applied to claim 10, Gorsuch et al further discloses an information storage apparatus (bandwidth management functionality 174, see fig. 1, p.3, [0029]) coupled to said first resource control segment (base station equipment 170 consists of bandwidth management functionality 174, see fig. 1, p.3, [0029]), said information storage apparatus for storing said information (the bandwidth functionality is in the CPU of the base station which receives a sub channel request message from the mobile station, see p. 5, [0069], [0068]-[0069]).

Regarding **claim 15**, as applied to claim 14, Gorsuch et al further discloses wherein said first and second wireless communication interfaces (bas station 170 and subscriber equipment 101, see fig.1, p.2, [0024], p.3, [0029]) are cooperable for wireless transmission of said information from said second resource control segment to said first resource control segment.

8. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)** as applied to claim 1 above, and further in view of **Robert et al (6,104,712)**.

Regarding **claim 20**, as applied to claim 1, Gorsuch et al, as modified by Auckland discloses the claimed invention except wherein said resource control segments are cooperable for determining a distance over which the communication session will be conducted, and are further cooperable for selecting a frequency channel for the communication session based on said distance.

Robert et al, however, teaches wherein said resource control segments (central processing unit CPU 250 in the migratory node and remote computer, see fig. 2, col. 5, lines 46-51, col. 7, lines 14-20) are cooperable for determining a distance over which the communication session will be conducted, and are further cooperable for selecting a frequency channel for the communication session based on said distance (localized communication between the MAN and remote computer is dependent on the distance; short range communication links require a high frequency, and mid-range to long range propagation requires a lower frequency, see col. 7, lines 37-55).

It would therefore have been obvious to one o ordinary skill in the art to combine the teaching of Robert et al into the system of Gorsuch et al and Auckland for the benefit of initiating a data transfer between a source and destination by way of migratory nodes.

Regarding **claim 21**, as applied to claim 20, The combination of Gorsuch et al, Auckland and Robert et al discloses the claimed invention.

Gorsuch et al and Auckland fail to disclose wherein said resource control segments (central processing unit CPU 250 in the migratory node and remote computer, see fig. 2, col. 5, lines 46-51, col. 7, lines 14-20) are cooperable to select for the communication session one of a frequency channel at a relatively lower frequency if the communication session will be conducted over a relatively longer distance and a frequency channel at a relatively higher frequency if the communication session will be conducted over a relatively shorter distance (localized communication between the MAN and remote computer is dependent on the distance; short range communication links require a high frequency, and mid-range to long range propagation requires a lower frequency, see col. 7, lines 37-55).

Robert et al, however, further discloses wherein said resource control segments are cooperable to select for the communication session one of a frequency channel at a relatively lower frequency if the communication session will be conducted over a relatively longer distance and a frequency channel at a relatively higher frequency if the communication session will be conducted over a relatively shorter distance.

It would therefore have been obvious to one o ordinary skill in the art to further modify the combination of Gorsuch et al, Auckland and Robert et al for the benefit of initiating a data transfer between a source and destination by way of migratory nodes.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)** and **Kataoka (20030171124)** as applied to claim 10 above, and further in view of **Wieczorek et al (6,125,278)**.

Regarding **claim 13**, as applied 10, the combination of Gorsuch et al, Auckland and Kataoka disclose the claimed invention, in addition, Gorsuch et al further discloses wherein said information includes one of information indicative of wireless communication channel conditions (when the subscriber unit is no more in the idle state, data is ready to be transmitted and a request is made for a subchannel, see p.5, [0059]) at the wireless mobile communication device, and information indicative of wireless communication resource use in a previous wireless communication session involving the wireless mobile communication apparatus (when contents of buffer exceeds a threshold that it cannot be maintained by a single subchannel, the subscriber unit sends a request message over the already allocated subchannel requesting for more subchannels, see p.5, [0062]).

The combination of Gorsuch et al, Auckland and Kataoka fails to disclose wherein said information indicative of a location of wireless communication channel conditions of the wireless mobile communication apparatus and said information indicative of operational capabilities of the wireless mobile communication apparatus.

Wieczorek et al, however teaches wherein said information indicative of a location of the wireless mobile communication apparatus (the system receives from the subscriber unit environment and location information, see fig. 6, col. 4, lines 27-31) and said information indicative of operational capabilities of the wireless mobile communication apparatus (the system obtains radio capability information supplied by the subscriber unit, see fig. 6, col. 4, lines 22).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Wieczorek et al into the system of Gorsuch et al, Auckland and Kataoka for the benefit of optimizing communication resource allocation at the infrastructure equipment of a radio communication system.

10. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gorsuch et al (20040157617)** in view of **Auckland et al 20030078037 (hereinafter Auckland)** and **Kataoka (20030171124)** as applied to claim 14 above, and further in view of **Meadows et al (6,716,101)**.

Regarding **claim 16**, as applied to claim 14, the combination of Gorsuch et al, Auckland and Kataoka disclose the claimed invention except wherein said information storage apparatus is provided in a data network.

Meadows, however, teaches wherein said information storage apparatus (the internet server stores location information provided to it by a location database, see col. 2, lines 37-42, and col. 3, lines 59-65), is provided in a data network (internet 17, see fig. 1, col. 3, lines 59-65).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Meadows et al into the system of Gorsuch et al, Auckland and Kataoka for the benefit of monitoring the location of a subscriber's mobile telephone.

Regarding **claim 17**, as applied to claim 16, the combination of Gorsuch et al, Auckland, Kataoka, and Meadows et al disclose the claimed invention.

Gorsuch et al, Auckland and Kataoka fail to disclose wherein said data network includes the internet.

Meadows et al, however, further discloses wherein said data network includes the internet (the internet server stores location information provided to it by a location database, see col. 2, lines 37-42, and col. 3, lines 59-65).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Gorsuch et al, Auckland, Kataoka and Meadows et al for the benefit of monitoring the location of a subscriber's mobile telephone.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Voyer (20020119782) discloses a method of allocating transmission resources.

Chen et al (20020082021) discloses a radio resource allocation method and base station using the same.

Wesby et al (6,799,044) discloses a method and system for mobile communications.

Rinne et al (6,693,892) discloses a method of controlling communication resources.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

OA

CHARLES APPIAH
PRIMARY EXAMINER